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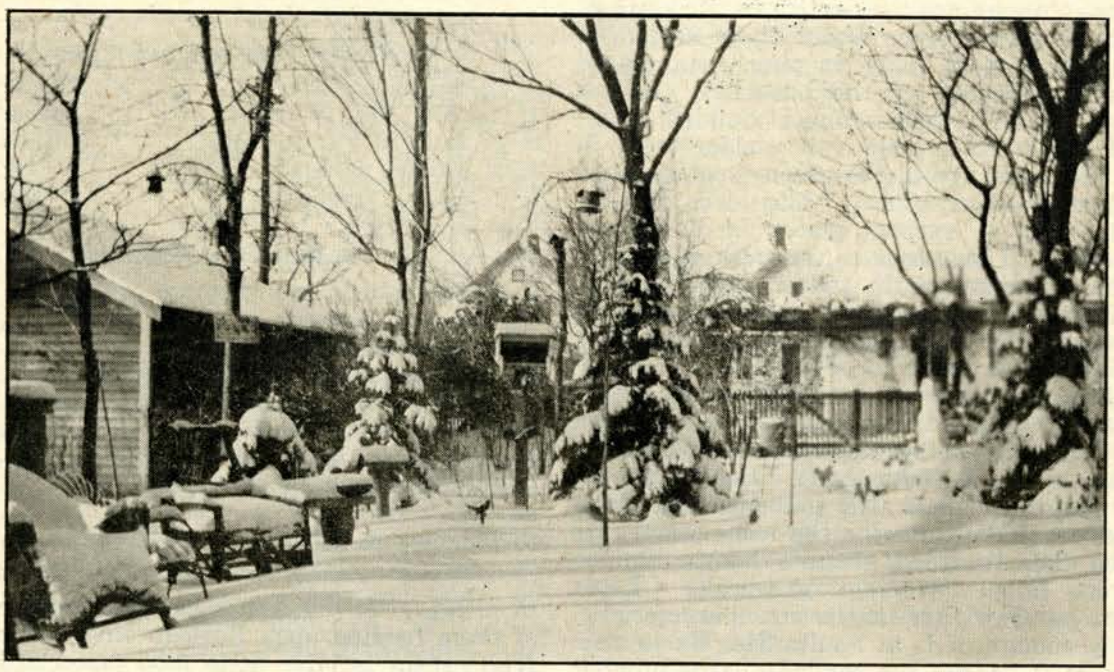

WINTER SCENE IN THE BIRD GARDEN OF MRS. D. B. GETTY, SIOUX FALLS

THE EVENING GROSBEAK

By O. A. Stevens

This is another of the uncommon birds in North Dakota, but one of unusual interest. It belongs to the sparrow family and is closely related to the purple finch and crossbill. It is a stocky bird, as large as a rose-breasted grosbeak, with a short, forked tail. The general color of the male is yellow, the tail and outer part of the wings being black. A large white patch in the wings is conspicuous. The head is more or less black, with a broad yellow stripe above the base of the bill and over the eyes to the back of the head. The female has no black on the head and is more greenish or brown all over except the wings and tail. The bill is extremely stout, almost as thick at the base as it is long. Last fall when I trapped one of the birds and held it in my hand for the first time, I noted that not only was the bill enormous, but the head large also, almost parrot-like. The legs were short, like those of other birds which cling much to trees.

These birds often visit seed-bearing trees in town, especially during winter, and are exceedingly tame. In summer they retire to the swamps and very little is known about their nests. A few nests have been found in pine trees, placed well toward the end of the branches. A few years ago two nests were found at Selkirk, Manitoba. These were located in box elder trees in town. The eggs are bluish-green, spotted with gray, olive-green or brown. The birds are believed to nest at various places in the Great Lakes region. They occur as far west as Alberta and wander southward in winter, sometimes as far as Missouri and Delaware. A western form occurs west of the Rocky Mountains, and another in Mexico and Arizona.

This bird was unknown until 1825 when it was described by William Cooper from a specimen secured two years before, near Saulte Ste. Marie, Michigan, by H. R. Schoolcraft. Cooper quoted from a Major Delafield who had observed them northwest of Lake Superior the same year. He had seen them only at about sundown and so they were called "evening" grosbeaks. Later observations show that this is not characteristic. Curiously enough, it is at Saulte Ste. Marie also, that Mr. M. J. Magee has banded a large number of these birds in the last few years so that we have learned a little more of their movements. Fourteen of his birds have been recovered in the region of New York, Quebec, Massachusetts. Two were found in Minnesota and one at Newdale, 35 miles north of Brandon, Manitoba. Two birds banded in New Hampshire were retaken by Mr. Magee in Michigan.

The evening grosbeaks feed chiefly upon various seeds. It appears to be the box elder, ash and other trees which have attracted them to cities. A few years ago we observed some of them feeding upon Russian olive fruits. These fruits seem to offer little food material but this bird has the unusual habit of cracking seeds for the kernels within. Dr. A. A. Cahn watched them feeding upon wild cherries in northern Minnesota, and observed that they discarded the pulp and cracked open the hard pits. Another peculiarity which has been observed a number of times, is that they are fond of salt and will visit places where salt or brine has been dumped, to eat the sticks and leaves which have become saturated with it.

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NORTH DAKOTA STATE HORTICULTURAL SOCIETY NEWS LETTER

A. F. Yeager, Secretary, Fargo, N. D.

Have you tried any of the following new varieties of flowers for which much is claimed. Yellow Supreme marigold, Orange Shaggy calendula, Phantasy zinnia, Martha Washington petunia, Orange Flare cosmos, Gigantia Artshades phlox.

If you are intending to raise peonies for show purposes, be sure to give them plenty of space between plants. I would consider 5 feet none too great —and then see that they get plenty of shallow cultivation.

A recent letter from Punjal, India, asks how wood veneer bands are put together when they are used for starting plants. It is not necessary for them to be fastened in any way. If you have not tried these, I suggest you locate some before starting your plants this spring. The 3-inch size is good for plants which require that much soil, but the 2-inch size is plenty large for the smaller plants.

If you have grape vines which have been neglected for a number of years a large percentage of the wood should be removed before growth starts in the spring. However, it would be well to leave enough one year old wood to make one solid string of new wood along the trellis in order that you may get some crop. The remainder of the old surplus wood may then be taken away the next spring. Complete renewal, therefore, requires two years instead of one.

People who grow cabbage on a large scale for market usually grow their crop by drilling the seed directly into the ground and thinning out the plants to the proper distance. Such a method will increase the size of the crop, and if the land is not too weedy will reduce the cost of production.

Jerusalem artichokes are once more receiving considerable publicity as a promising crop. We grew them about 15 years ago but were not greatly impressed. The Minnesota Agricultural Experiment Station says that they might have possibilities if a market was developed for them. But, under present conditions there is little to do with them except to use them as hog feed.

A rather revolutionary view of the pruning of apple trees is described in Michigan State College Special Bulletin 265 entitled THE THIN WOOD METHOD OF PRUNING FRUIT BEARING APPLE TREES, by Ricks and Gaston, in which the authors recommend the removing of the small thin diameter wood on the inside of the apple tree. This will mean the removal of most of the old fruit spurs inside the tree and the removal of the smaller wood toward the outside of the tree. The authors claim that this thin or slender wood produces very little fruit, what it does bear is poor in quality and that the production of this poor fruit on the slender wood results in reducing in quality and quantity the first class fruit produced on the heavy wood. Apparently the type of pruning which I did as a six year old youngster when I shinned up the branches of the apple tree and cut off all the little limbs I could reach was exactly the kind of pruning which the apple tree should have had, but the kind which we have been condemning for the last 40 years. The world does move!

If you wish to try some of the very small squashes as a companion to Table Queen try Delicata. These two varieties, while commonly called squashes, are really small pumpkins and may be grown alongside your Buttercups without much danger of crossing.

If, as is claimed, Stewart's disease (bacterial wilt of corn) does not occur after unusually cold winters, it would seem next summer should be one of comparative freedom from disease, and since corn ear worm may likewise be destroyed by cold weather that pest should be of less importance than usual in 1936.

The Wayzata everbearing strawberry seems to be making friends for itself wherever there is enough moisture for any strawberry to make a crop.

Apparently the favorite food of jackrabbits is Chinese elm—with a little seasoning of sumac. There are those who claim the rabbits prefer Chinese elm to alfalfa. Just how big a tree is subject to their attacks I do not know. Perhaps some of the Horticultural Society members have observations to make with respect to that.

When you order your seeds this spring, don't forget to try a good planting of Lincoln peas if your seed company lists them. This has been our favorite at the Experiment Station for a number of years and most growers who try them are highly pleased both with the yield and quality. It is not the earliest variety at Fargo, but is one of the very best.

Does orchard pruning and spraying pay? The answer is found in the results of co-operative experiments conducted by the Missouri College of Agriculture in 40 Missouri orchards. These experiments extended over a period of three years. They show, first, that a neglected orchard is about the most unprofitable thing on the farm; second, that the best-managed orchards in Missouri are producing more profit per acre than any other farm crop.

THE WAYZATA STRAWBERRY

J. D. Winter

Back in the fall of 1926 I recall looking at one very robust strawberry plant that stood out in strong contrast to many thousands of other plants in the same field. Braden Brothers, the owners of this farm, told me that this one plant had appeared in a mixed bed of strawberries and that it had attracted their attention by its unusual vigor and productiveness. From this one plant has been produced the new Wayzata everbearing strawberry.

I have watched this berry closely every year since that time. At first I viewed it with the natural skepticism of one who has seen so many promising new fruits develop a weakness and fade out of the picture. Not so, this berry. Gradually these brothers discarded their old standard varieties to make room for this new berry, until in a few years all other strawberries but this one has been discarded.

Since that first day in 1926 I have visited the Braden farm regularly several times each year. I have seen many a truck load of berries leave their farm for the Twin City markets to sell at a big premium over all other strawberries offered for sale. There is nothing phoney or misleading about this statement. It is a condition that actually has existed on the Minneapolis and St. Paul markets for several years. Any stranger can come into town during the fall berry season and go down to the market to see it for himself. But he'll have to be down early because Braden's berries don't linger around unsold very long after the market opens.

Now what has this berry got? What makes it so superior to all other everbearing sorts we have seen here in the Twin Cities? First of all the plant is strong, with large leathery leaves that are resistant to leaf spot. The berry is big, it is of the highest quality, and it is firm enough to ship well. The color is an attractive bright red and the berry does not lose its gloss soon after picking like so many other berries do. That's about all there is to it.

Wayzata is a variety that will respond well to good culture and to the judicious use of fertilizer. By this I don't mean a lot of nitrogen fertilizer, but enough 4-15-4 to produce a good crop and put a good finish on the berries. In some soils this variety has been a poor plant maker, but I think this is largely due to unfavorable conditions, perhaps planting too late, maybe lack of humus, or not enough plant food in the ground. In my own garden, which is rather new soil, it produced too many runners to suit me. It is believed that Wayzata may not be so good on peat soil, and I've expressed that view myself. But this summer a grower came to see me and told me what wonderful results he had secured on peat, fine berries and good runner production. This grower had used 0-12-24 fertilizer on his peat before planting. Of course there are different kinds of peat, and some may need different treatment.

Letters have come to me from many different states giving high praise to this new Wayzata strawberry. The plant and the berry resemble so closely the strawberry being sold on the west coast under the name of Rockhill No. 26 that for all practical purposes they may be considered identical, even if of different origin which has not been established. In any event we know that the Wayzata is a pure strain without mixture which cannot be said of the original Rockhill introduction.

The Wayzata has the rather unusual habit of producing multiple crowns, and when planting it is advisable to prune large plants of this variety to a single crown to encourage runner production. It is also best to remove these extra crowns as they appear until the plants begin to produce runners. Rows should be from three to four feet apart, with the plants about 15 inches apart in the row. Commercial growers may find it desirable to remove all the spring blossoms in the second year of the planting in order to encourage production of the fall crop several weeks in advance of the normal date.

THE EVENING GROSBEAK

(Continued from page 26)

It has seemed strange that these birds should be so retiring during the summer and then so tame in winter. Dr. T. S. Roberts has suggested that they do not seek the company of man, but are attracted to his plantings of seed-bearing trees and merely indifferent to his presence. Dr. A. A. Allen has published in Bird Lore (Nov. 1914) an interesting account of the birds at Ithaca, New York. A small flock appeared there on February 17 and remained until the first day of May. He describes them as "stolid, indifferent, lazy, almost stupid." They took no interest in various grain foods, nor in the pans of food carefully placed in the trees, but finally were attracted by sunflower seeds on the ground.

There is nothing more needed and yet more neglected by our farmers than a good windbreak. A windbreak well cared for and well matured will greatly lessen the lumber and feed bills, as it will also lessen in the minds of our farmers the horrors of winter.

Plant a windbreak far enough away from your yards and buildings so that you may be free from snow drifts during the early growth of your trees. This is essential. Always leave plenty of room within your windbreak.

PRESIDENT'S CORNER

F. X. Wallner
Sioux Falls, S. D.

Our friend John Robertson must have had many good laughs the past six weeks in his warm, sunny Hills, while the rest of us were shivering in temperatures far below zero, most of the time. At the banquet, at Aberdeen, he told us how warm it was when he left home, so he was rather disappointed when he reached the convention city and found below zero weather. Many jokes were hurled in his direction about his California climate during the after dinner speeches, but the weather report for January shows Aberdeen the coldest town in the state, and Hot Springs the warmest.

Now that the Warren potato bill is also dead, reports are coming in that there will be a big increase in plantings. Southern planters will hope to ship some to Canada, even northern districts will ship some, providing the stock is good, but it is admitted that the New Brunswick and the other Canadian Provinces potatoes are the very best and the producers are complaining. The low potato prices in the United States keeps their market dull and they are not getting the 50 cents a barrel advance expected.

I wish to add a few lines more to the beneficial qualities of Garlic. My latest catalog quotes a French doctor as saying "Garlic dissolves the crystals, the accumulation of which, causes hardening of the arteries. It lowers the blood pressure, accelerates and regulates the blood circulation by stimulating the heart muscles and also acts as a blood purifier."

From the five petaled Nasturtium we got the 8 to 10 petaled dwarf double Nasturtium last year. Now comes the 40 to 50 petaled patented super double, that keeps on blooming and never goes to seed. You buy a rooted cutting for your own enjoyment, but for 17 years you are forbidden to sell or give away plants, cuttings or other parts of the plant.

Our potato test was similar to that of the Minnesota test except that Warba was ahead of Chippewa, but the new No. 35-36 was much better than either of the new named varieties.

$12,000 for tools and material and $133,000 in labor, to scrape 250,000 apple trees, about one fourth the number in the Yakima district, has been appropriated. Then next spring these trees are to be banded at a cost of 10 cents a tree by the owner. 90% of the worms are caught, if only the main trunk is banded and only 33% of the trees have been banded.

The marketing of carrots has changed very much during the past few years. Last year the Imperial Valley shipped only six carloads during January. This year, during the same month, they shipped out 148 carloads of green top carrots. This is the more strange when one knows that there are plenty of old carrots in storage in the country that can be bought for from 25 to 75 cents per bushel, but the green top attracts attention, as they look attractive and tempting, so they sell readily for several times the price of mature carrots with a much better vitamin content and two-thirds of the 148 car loads, the top, is garbage.

The first question asked in the February 1st MARKET GROWERS JOURNAL is "what to do about cabbage plants from the south that are covered with aphis". I find that is the main objection to southern plants, also southern onion plants are often covered with thrips. Better use sets. By using these southern plants, we have aphis and thrips 4 to 8 weeks earlier than we would have otherwise, an early crop we do not appreciate. These plants also harbor the corn ear worm that no doubt has been introduced into northern states by these southern plants. We may also need to plant a hardy hybrid corn instead of Golden Bantam. Michigan experts claim the worms would rather starve than eat stalks of hybrid corn.

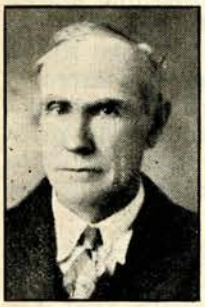
Reports are coming in of big damage to peach crop and other fruits in Ohio, Illinois, Indiana, West Virginia and Maryland. Reports are also, that there will be much damage to trees of all kinds, as many have split open and will die; one of the cut-leaved birches in McKenna park has split open. Potatoes and vegetables in pits and cellars, will also freeze, as the frost is down 4 or 5 feet, despite the deep snow. Banking up trees and shrubs with several feet of snow, should help.

West Virginia Relief Administration is buying up 40,000 bushels of local apples at 70 cents per bushel. Federal inspected utility grade, of all kinds except Ben Davis, will be bought. In Washington state all the C grade apples, between 250 and 500 cars, will be taken by the Federal Relief Administration.

The lettuce plantings in Salinas Co., Calif., have increased from 31,000 to 33,000 acres and the Imperial Valley growers are shipping but 160 cars daily, on a voluntary control plan and the Phoenix and Yuma growers are plowing under one third of their crop, about 7000 acres, to prevent a glut on the market.

According to old history, the tree agent was in his heyday in the northwest from 1875 to 1890, but was supposed to have become extinct, like the Dodo, but according to reports, there are still lots of them around. There were reports this fall of agents getting down payments on nursery stock in South Dakota.

SWEET ROCKET, DIANTHUS, IRIS AND PEONIES



Al L. Truax

Sweet Rocket. This flower, the botanical name for which is Hesperis Matronalis, closely follows the last tulips in blooming period. It belongs to the cress family and bears four-parted flowers in only two colors, purple and white. The individual flowers and plants have no great beauty, but grown in masses it is charming. In the evening it sheds upon the air the odor of violets, for which reason it is sometimes called Dame's Violet, and because it something resembles the perennial Phlox, it is sometimes called Mountain Phlox. The culture of Sweet Rocket is simple. It will grow in sun or shade, good soil or poor, wet soil or dry. It grows readily from seed, and once established, it will seed itself and spread to unoccupied spaces. It is fine among trees, where little else will grow.

Dianthus. Under this term I include Grass Pinks, Clove Pinks, Pheasant-eyed Pinks, Japanese and Chinese Pinks, Hardy Garden Carnations and Sweet Williams. Some English catalogs list 146 different species of Dianthus. Here would be another fascinating task for a man with a Dianthus complex—the collecting and growing of these, from all corners of the earth. The Grass, Pheasant-eyed, Clove and Scotch Pinks will closely follow the Sweet Rocket in blooming period. All of these have silvery gray evergreen foliage and daintily colored, deliciously fragrant flowers. I get the double flowered varieties where I can as even then, some will come single or semi-double, when grown from seed. The Hardy Garden Carnation resembles the above named pinks in foliage and habit of growth, but it blooms later and the blossoms are larger, resembling those of the greenhouse carnation. The Chinese and Japanese Pinks have no fragrance, but they compensate for this lack by their wonderful variations of form and color. They are usually classed as biennials, but in my garden they persist for many years. The Sweet William (Dianthus barbatus) is an old standby from Grandmother's garden. To most of us it brings back memories of youth, and it will always be prized for its quaint colors and old time fragrance. All of the Pinks and hardy Carnations may be grown from either seed or plants set in the spring. They prefer a heavy soil and sunlight. Their evergreen foliage should be covered in winter with straw or hay, to prevent winter winds and spring suns from sapping and drying it out. Sweet Williams should be given the same protection and will grow well among trees where the snow drifts over to form a covering. I was sorely tempted to put in the Columbines or Aquilegia for No. 3 on the list, because they grow so well for me here. They spread and increase so rapidly that I have more of them in my garden than any other plant except Sweet Rocket. However, they prefer a shady or semi-shady situation and so must be considered special purpose, rather than general purpose plants. Though the colors are subdued rather than brilliant, the range is wide, Aquilegia chrysantha being yellow, A. coerulea blue, and A. canadensis red or scarlet—one of the few instances where red, blue and yellow are all found in one family. Columbines may be grown from either seed or plants set in spring. There are many varieties, but they hybridize and mix with each other so readily that I have given up trying to keep them separate, and I allow them to seed themselves and come up at their own sweet will in many charming combinations of form and color. They prefer rich, moist soil and a cool location, like the north or east side of a wall or house.

Iris. I refer particularly to the German Iris here, as the Japanese, English, Spanish and a number of other special varieties, are not well adapted to our climate. There is sufficient range of form and color in the German Iris and its hybrids, however to fill all the needs of the ordinary garden as a general purpose flower. Love and admiration for the Iris is nation wide, as is evidenced by the American Iris Society. Iris fanciers will pay great prices for the roots of new varieties, but I wait until they get down to about 25 cents each before I buy, with the result that my garden is over-stocked with old varieties. Their culture is simple. They must be grown from their rhizomes or roots, which are usually set in July or August, after blooming. Planted in this way they will bloom in June of the following year. They may also be set in the spring, but will not bloom the same year. Do not set the roots too deeply—just enough to anchor them firmly in the soil. They like the sun's heat and a good baking during summer. They are not particular as to soil, but like it well drained. Many advise adding lime to the soil, but I find that our Dakota soils are usually alkaline or limy enough. A handful of bone meal dug into the soil, around each plant once a year, is usually sufficient fertilizer. Irises are sometimes affected with root rot, often from no apparent cause. When this appears, I scoop out the decayed portion as cleanly as possible and then coat the inside of the cavity with sulphur. This usually checks the spread of the disease. A light covering of hay or straw in winter, is advised.

Peonies. Closely following the German Iris, the Peony unfolds its gorgeous blossoms. This is the flowering plant par excellence for North

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FORESTRY VIEWS

D. D. Baldwin

My purpose in writing this article, and others which are to follow, is to bring to the readers of the Horticultural Society magazine such news and general remarks pertaining to forestry and tree planting as will be of interest and value.

Controlling rabbit injury will be given first consideration. Every winter when a blanket of snow covers the grasses and herbaceous plants on which the rabbits ordinarily live, they turn to the trees and shrubs for subsistence. As a result many orchard and shelterbelt trees are badly damaged if not killed. It is not unusual, for the rabbits to become so bold as to attack ornamental trees and shrubs planted in close proximity to houses. Many fine and valuable trees are lost in this manner.

What can we do to protect our trees from being damaged by rabbits? Orchard and ornamental trees are probably best protected by placing wire screens or guards around the trunks. Ordinary window screen is satisfactory, but a heavier screen of hardware cloth with about a quarter-inch mesh makes a more permanent guard. The screen should be high enough to protect the trunk of the tree from the ground up to the branches, and not less than four or five inches in diameter. Screen guards especially made for this purpose may be purchased on the market.

Shooting the rabbits is another means of control, although it sometimes seems to be an endless task. Organized rabbit hunts are very much worth while and should be encouraged. A dog which has been trained to be on the lookout for rabbits can be a great help in keeping the pests out of the yard.

Poison feed can be used, but it is a rather dangerous proposition and difficulties are sometimes encountered in finding food which the rabbits will eat readily. Poison salt has been recommended as an effective means of control. It was found that rabbits like salt and are naturally attracted to it. The addition of a small amount of strychnine to the salt will make it fatal. Extra precautions must be taken in handling the strychnine and locating the salt licks because the substance is deadly poisonous to humans and most animals. Only chickens and other fowls which digest their food in crops are not affected by it. The salt may be placed in holes bored in a block of wood to eliminate the danger of scattering it. In some cases rabbits have been prevented from attacking trees by feeding them regularly. The idea is to satisfy their hunger with alfalfa or some other food which they are attracted to and thus lessen their appetite for tree bark.

Then, too, there are chemical preparations, known as rodent or rabbit repellents, which should not be overlooked. The sulphurized linseed oil mixture about which we heard so much a few years ago has been replaced by another preparation known as copper soap. It is relatively new, but several States Experiment Stations have tried it and are recommending it for rabbit control. It appears to be the best repellent found so far. The formula is: 7 pounds of resin, 3 pounds of fish oil (unsaturated), and 3 pounds of copper soap (copper oleate). These materials may be purchased from a drug store and prepared at home. Instructions say, "the materials should be melted in a kettle over a slow fire and stirred after melting to insure an even mixture. It can be painted on the trees with a brush while still warm. If dilution is needed for spraying it is suggested that a high grade gasoline be mixed with the material until it acquires a proper consistency. No gasoline containing lead should be used." The preparation may be purchased at a reasonable price by those who do not care to mix it themselves. To my knowledge there are only two concerns offering it for sale: The Castle Chemical Company at Castle Rock, Minnesota, and the Minnesota Fruit Growers' Service Company, 786 Eustis Street, St. Paul, Minnesota.

Shelterbelt and woodlot plantings may be protected by fencing the area with a rabbit proof fence. Fencing as we ordinarily fence out rabbits, however, is too expensive for general use. The Lake States Forest Experiment Station devised a new method of rabbit control which they found effective in protecting their tree plantations in the Superior National Forest in northern Minnesota. They piled brush in windrows about 18 inches high completely around the area to be protected. At intervals of about 20 to 30 feet small, openings were left. The rabbits soon es-

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FRUITS IN MANITOBA

Dr. W. R. Leslie

Currants: Red currants are an important crop and some advances are noted. Minnesota No. 70 is the largest in size this year. The bunch is not as long as some but is well and uniformly filled. Stephens No. 9 from Eastern Canada is a large berry of mild flavor. Red Lake from the Minnesota Station has not been overly-vigorous as yet but promises to be useful.

Crandall is a named variety of a native Great Plains species that has been too long neglected. Seedlings vary in size and in color from pale amber to purple-black. The species appears to possess the very desirable merit of resistance to drought. Some strains ripen unevenly but others bear heavily, and large pickings of useful fruit may be made.

Gooseberries are considered the nearest to a 'sure-thing' crop of all fruits grown at the Dominion Experimental Station at Morden, unless they should share the distinction with the sand cherry. Real advances have been made in gooseberry varieties lately. Professor Yeager's Pixwell is considered the most valuable of all the many varieties yet acquired. The remarkable vigor and hardiness of bush, coupled with fruit of good size and fine quality, borne abundantly every year, and readily and comfortably harvested gives this hybrid first rank. Spinefree lives up to its name and has fruits about the size of Pixwell, but as yet seems to lack in yield. Clark is the prominent variety of Eastern Canada. Its very large tender berries suggest the renowned European sorts, and on its behavior at Morden is suggested for extended trial in sheltered gardens. Careless is a large sweet berry of European blood. It is less vigorous than Clark, and much less so than the Yeager hybrids. Poorman has not been very productive in Manitoba during recent dry years.

Strawberries: Dry seasons have prevented strawberry tests being convincing, but Dorsett is promising.

Grapes: Pear of Csaba is the one early Vinifera in the Morden vineyard. This small sweet pale green grape is doing very well, but the vine lacks vigor. It is being used in grape breeding. Moores is esteemed for its comparatively early blue fruit. Campbells is somewhat later but a consistent heavy bearer. Lindley is also later, but its red fruit is excellent. The three introductions of the Geneva Station—Ontario, Portland, and Fredonia, are being watched with interest. Native grapes from the Riding Mountains are being selected for size, meatiness and earliness.

Kolomikta-vine (Actinidia Kolomikta) appears hardy, and is under observation as a possible new fruit in the vineyard.

Blueberries are a generally appreciated native fruit. Unfortunately, they do not tolerate the limey soils. As a possible substitute the Sweet Honeysuckle (Lonicera villosa) is on test. The plants came from near The Pas in Northern Manitoba. If they do not prove thrifty in local soil, a tolerant congenial root-stock may be found. The fruit is about the shape of a small gooseberry, and resembles the blueberry in color and, to surprising degree, in flavor.

Apples: Varieties may be mentioned by the hundreds. The following dozen are of keen interest this year. **Melba,** an Ottawa seedling of McIntosh is the choicest early apple grown in Canada. **Crimson Beauty,** from New Brunswick, is ripe in early August, attractive rich red in color but ordinary in flesh. **Early Red Bird** is also very early and of attractive coloring, somewhat suggestive of Red Astrachan. **O. A. C. 12012,** a medium to smallish variety from the Ontario Agricultural College. Fruit possesses several McIntosh characteristics, but tree appears hardier and more fruitful. **Patricia** is a choice, smallish, lively red McIntosh seedling from Ottawa. It is productive, of high quality, and keeps to New Years but lacks somewhat in size. **Jethro** is an Ottawa seedling of Wealthy that is more productive than the mother, and popular as an earlier dessert. **Atlas** was developed at Ottawa as a seedling of Winter St. Lawrence. A large apple of high dessert quality. **Horace,** an Ottawa seedling of Langford Beauty, has many qualities suggesting Fameuse. **Herald,** an Ottawa seedling of Fameuse, is of medium size and a favorite dessert apple in September. **Mendel** is a late winter apple of pleasing flavor developed from Wealthy at Ottawa. **Haralson,** developed at the Minnesota Station, is hardy and productive at Morden, where it is considered the main late winter apple variety. **Charlamoff** is an old-time Russian variety noteworthy for its hardiness and its annual crops of early but short-season, angular striped fruits.

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SECRETARY'S CORNER

W. A. Simmons

Our old and much valued friend, Mr. Elmer Reeves, of Waverly, Iowa, whose presence at many of our meetings was so much enjoyed, writes as follows: "Perhaps you will be interested in some of my experiences of late. I have fruited several of the new apples sent out from Ames and among them find as follows:

Hawkeye Greening is a large apple of green color, but attractive, smooth and somewhat flat which makes it easy to handle. The flesh is white and cooks white, very fine in grain and with excellent flavor. The trees bear young and abundantly and I believe it hardy enough to go much farther north. Macy is a large apple, well striped with good red, making an attractive appearance, and like the greening is excellent for cooking, and both will keep well into February. The one known as Ames is small—just right for children to eat—and is of good quality; of dark red color. and will keep through February or longer. These three bear abundantly and are a distinct addition to our list. Among the newer varieties that promise well is Joan, a bright red apple of large size that will attract attention in any display of apples. It is of good quality and last season it bore on grafts set two years before, and is a real keeper, from present appearance. I believe Joan will be largely planted as soon as well known. Among the older sorts I value Windsor Chief, as it is not only a good fruit but will keep through the spring. Sops of Wine is one of the real old varieties but I have gone back to it as the best harvest apple. It is red in color and much better in quality than Yellow Transparent. It is hardy here but will not go much farther north."

Our Vice-President, Mr. Geo. W. Gurney of Yankton, writes as follows: "This cold weather got me to thinking about the fruit buds, so today Sidney went out and cut off a small twig from Pear, Plum, Cherry and Apple. The Pear, a Douglas, seemed to be damaged in the bud but the wood looked reasonably bright. The Cherry, Montmorency, was not so good, but plenty of good buds left to produce plenty of fruit, while the Plum, a hardy variety was O. K. The Apple, I do not know the variety, but the buds were O. K., the wood discolored. I am anxious to see how some of the more tender varieties will come out. I believe a test winter once in a while is a good thing. It will teach us to watch our plantings. The east lost thousands of trees last year and the year before. A horticulturist writing stated that the native trees stood, but the tramps from the south, couldn't take it. The snow covering is a great help for both large and small plants and trees. I fear great damage would have occurred without it."

During all this long winter of abnormally cold weather, I have refrained from publishing pictures of wintry scenes as most other editors have done, believing that our members had plenty of snow to look at, without looking at pictures of it. However now, with spring, like prosperity, "just around the corner," we believe that "now it can be told" and if viewing our cover page sends cold shivers down your back, save the magazine till July and look at it then.

SWEET ROCKET, DIANTHUS, IRIS AND PEONIES

(Continued from page 30)

Dakota, as it is hardy in our coldest winters and thrives excellently in our rich, limy prairie soil. It is useless to try to name or describe the great list of Peony varieties and new ones are being constantly added through the efforts of breeders and the American Peony Society. I must therefore limit myself to a few notes on the culture of this noble flower. A Peony plant lives a long time in one place, and therefore needs plenty of root room. Holes two feet square and two feet deep should be dug for each plant and the plants set four feet apart. If manure is used, it should be dug into the subsoil at the bottom of the hole and not allowed to come in contact with the roots, as that will induce decay. The roots must be set in the fall, late August or early September being the best in this latitude. Spring plantiing is usually not satisfactory. After firming the soil in the hole well, set the roots so that when the hole is filled, the crown of the plant will be not more than two inches below the surface of the ground. Too deep planting of Peonies is the common cause of failure to bloom. Many people think that everything must be buried deeply in this climate in order to survive our winters, but this is not true of the Peony. Another quite common cause of failure with Peonies is planting them too close to trees or shrubbery. I have often been called upon to go and see some ones Peonies and pass judgment upon why they did not bloom. In nearly every case I have found a row of trees not more than 8 or 10 feet away, whose hungry roots were

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NORTH DAKOTA NOTES

Victor Lundeen

Every farm and small town home that did not have a garden during 1935 lost money—money that could have been saved had the family food supply been raised at home instead of being purchased at the grocery store.

Have you ordered your garden seed? If not, now is the proper time to do it. Select your seed from a reliable company which sells those varieties best adapted to northern conditions. It is wise to buy your seeds from a company near at home as they are more apt to have the variety adapted to this region.

March is a good time of year to check over your garden tools and implements. Do not wait to make repairs when it is time to get into the garden.

Many home gardeners neglect to plant asparagus because the seed cannot be planted in the spring and a crop secured the same summer. Even when roots are planted it usually requires two years to produce a crop. Remember, however, when once started this crop grows year after year with less work required for its care than most of our annual crops.

Some of our summer squash varieties are not squashes, but are actually pumpkins. An examination of the stem will reveal whether a specimen is a pumpkin or squash. Pumpkins, when mature, have a hard woody fruit stalk which is distinctly furrowed lengthwise. Squashes, on the other hand, have a soft rather spongy stem which lacks ridges or furrows.

A recent article states that in the British navy tomato plants are carried on all submarines. Tomato plants are very sensitive in detecting the presence of poisonous gasses which is one of the greatest dangers in submarines. These gases originate from storage batteries and are deadly. The leaves of the tomato plants droop when exposed to such gas and thereby serve as a warning to the men in charge.

How many of our gardeners use a small scale irrigation system? If you have a successful system or know of someone who has such a small practical irrigation system we shall appreciate receiving your description of it. Perhaps you can give us some information which we may be able to pass on to other people.

A note in WISCONSIN HORTICULTURE states that it requires 40 to 50 leaves to produce a normal sized apple, and consequently if a tree sets too many apples fruit thinning is necessary.

A correspondent asks this question: "Can celloglass or window cloth be used as a substitute on hotbeds?" This material would no doubt be satisfactory, but it is not as durable nor as permanent as glass.

Many gladiolus growers had considerable trouble with thrips during 1935. Only thrip free corms should be planted, and they should be treated before planting. The following treatment is one of the most common ones used for corms in storage: Place corms in paper bags (about 100 corms to each bag) and scatter about an ounce of naphthelene flakes over the corms in each bag. Allow the corms to remain in the bags for two or three weeks, after which they should be removed and exposed to the air for a few days before planting. This treatment is fairly safe and effective if not continued over too long a period of time.

An excellent publication on the construction of rock gardens is Special Bulletin 228 of the Michigan State College, East Lansing, Michigan. If you send for this bulletin, be sure to include a dime to partially cover the cost.

SWEET ROCKET, DIANTHUS, IRIS AND PEONIES

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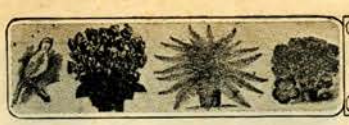
sapping the moisture and nutrition that the Peonies so sorely needed in the task of throwing their enormous blossoms. Peonies need the ground to themselves. The first year after setting in the fall, it is advisable to bank a few inches of dirt over each plant and then a coveriing of hay or straw over that. After the first winter, I have never protected mine in any way except by leaving the foliage to catch the snow during winter, and I have never lost any. If the fall is dry, a thorough watering in September will greatly aid blooming the following spring. About a pound of bone meal, dug into the ground in a circle about a foot away from the crown once a year, in spring or fall, is usually ample fertilizer to keep them growing and blooming for years.

Top-working young apple trees in the nursery cellar seems to be a new and practical method to meet the demand for certain varieties of planting stock.



NORTH DAKOTA
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SOUTH DAKOTA

FORESTRY VIEWS

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tablished their runways through these openings and did not jump over the brush even though it was piled only 18 inches high. In these openings rabbit snares were set. A report on the work says, "gratifying results have been obtained wherever this method has been used." Of course, few farmers in the Dakotas would have brush available for this purpose. However, there is a possibility of using other materials. The same report says, "chicken wire in 18-inch sections could possibly be used instead of the 'brush fences'. Fences thus made would probably be cheaper and would have the advantage of portability as well." We have been accustomed to thinking that a rabbit fence must be high in order to keep the snow from covering it and to keep the rabbits from jumping over. Apparently, the fence need not be more than a foot and a half high unless our Dakota rabbits are higher jumpers than the Minnesota Snowshoe rabbits. Out on the prairies the snow would undoubtedly cover an 18-inch fence, but the fence having been made in sections could be lifted out of the snow and set on top of the drift. Stakes fastened to the wire supports could be stuck in the snow to hold the fence upright. Perhaps this method of rabbit control would not be practical for the protection of farm shelterbelts, orchards, and woodlots, but it does offer possibilities. Traps might be placed in the openings instead of the snares.

Spring and tree planting time will soon be here. The January 9th issue of the "Service Letter", a weekly publication of the Pennsylvania Department of Forests and Waters, contains an article entitled, "14 Points In Ornamental Plantings." This article, while written with reference to conditions in Pennsylvania, is equally good advice for ornamental tree planting in the Dakotas. It is quoted in full herewith:

1. "Keep roots moist at all times when out of the ground. Dried out roots mean trees dead before planting. Keep roots covered with wet cloth, heel in the ground or hold in pails of muddy water. A piece of burlap or canvas should be spread over the grass, so that the dirt from the holes may be thrown upon it, or use a wheelbarrow from which it is easy to shovel the dirt.
2. Holes must be made large enough so that the roots may be spread out naturally without cramping.
3. Be sure the holes are well drained, especially when dug in a clay subsoil.
4. Good, fertile top soil must be used about the roots. If the planting location is in impoverished ground, good soil should be provided about the roots.
5. Plant the tree about the same depth it stood at the nursery (easily determined by the dirt ring on the trunk.) This is very important.
6. Lay the roots out naturally and cut off smoothly all the broken or bruised parts.
7. Press the earth down firmly, embedding all parts of roots and working.
8. With small trees the dirt will settle about the roots if the plant is moved gently up and down and the earth firmed as the hole is filled. Be careful not to break the rootlets. With large trees use tamping stick.
9. Pour in water to top of hole after filling three-quarters full with earth. When this is settled complete filling-in process, leaving top soil loose. Do not hill up the earth about the base of the tree.
10. Trim broken or bruised branches, also small branches and limbs back to the next largest stem.
11. Do not cut back the leader or central stem, as a forked tree may result.
12. Large trees or trees in exposed places should usually be staked. To prevent chafing, protect the tree with old rubber hose or with burlap. A stake driven in the ground along side the tree with a rubber or burlap covered

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wire attached to the tree is a good support. Until the tree becomes firmly established see to it in the spring that the earth is closely packed about the trunk.

13. After planting it is better to leave a cultivated area about the tree than to sod close to it. The cultivated area should be from 3 to 5 feet in diameter.
14. Fertilizer or well rotted manure or compost may be used either thoroughly mixed with the soil in the bottom of the hole or as a surface mulch, or both.

FRUITS IN MANITOBA

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Of the apples introduced as seedling selections at the Morden Station, 8 are here mentioned. **Mantet** is a fine dessert early apple of medium size and bright color. An early yellow apple, Tetofsky, is mother parent. It has fruited in western Saskatchewan. **Manitoba** is a seedling of Duchess, but in texture, flavor and season it is more like McIntosh. It lacks somewhat in size, and in color, as it is a lightly blushed yellow. **Manitoba Spy,** seedling of Patten, is of good size and color and a general purpose sort up to mid-winter. **Spangelo** is a large apple for general use from September to December, a daughter of Crusoe, and thus grandaughter of Wealthy. **Godfrey,** seedling of the Patten family, is a very live red apple of medium size that is esteemed as dessert into the new year. **Watts,** another seedling of Patten, is a prospect for a large sweet apple. **Manred,** seedling of Anisim, is of medium size but very rich in color, the deep red sometimes completely overlaying the cream under-color. It keeps well into winter. **Stevenson,** still another Patten seedling, is of good size, well covered with rich red, and keeping into the New Year.

Crap Apples are on test galore. **Osman,** one of the Saunders first generation hybrids with the Siberian crab, is considered the more reliable in the Northern prairies. **Florence** does well across the plains and leads the well-known commercial sorts. **Rosilda,** a Saunders second-cross, with McIntosh pollen parent, is the favorite crab for canning at Morden, the flavor and texture being almost pear-like. **Trail** is another second cross. It is a sweet, sprightly, juicy crab that not only cans well but is unusually pleasant as dessert. **Olga** is useful for jelly and appears to be a valuable tree to set out for top-working. It is considerably hardier than Dolgo in the northwest. **Morden 340** is a large crab of rich red color, a controlled cross. Rosilda X Angus, being a mixture of two second cross varieties and carrying the blood of Northern Spy and of McIntosh. In the new hybrids carrying redvein blood, **Scugog** and **Nipissing** are two Ottawa varieties of large to medium size that make lively red jelly and canned fruit. It would seem that these red-flesh crabs are due for such popularity as to gradually displace many of the amber-colored crabs.

Pears: The Ussurian Pear of Manchuria is being used as stocks for topworking. The best eating pears fruiting at Morden are Tait No. 1 and Patten 1213. Others of promise are Patten 1211 and Patten 1215. New data on pears is to be expected shortly.

Sour Cherries include **Dyehouse** and **Montmorency** that are borderline varieties which bear moderately but are uncertain. **Bessarabian** usually gives a crop, as does Wragg. Three Morden selections, third generation from Shubianka, M-500, M-501, and M-502 are all larger in size than Bessarabian. The Vladimir seedling selection M-503 is smaller but very productive. These numbered strains, which came originally from Stevenson Brothers near Morden, are hardy and vigorous and may serve importantly as stepping-stones. The **Nanking Cherry** from north China is hardy and considered the first choice as a jelly fruit.